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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
PIERCE, JEREMY R

ART UNIT	PAPER NUMBER
1771	11

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A511

Office Action Summary	Application No.	Applicant(s)	
	09/997,673	NGAI, MOU-CHUNG	
	Examiner	Art Unit	
	Jeremy R Pierce	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,8-13 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-13 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
4)☐ Interview Summary (PTO-413) Paper No(s) _____
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other

DETAILED ACTION

Response to Amendment

1. Amendment B has been filed on February 19, 2003 as Paper No. 9. Claims 6 and 7 have been cancelled. Claim 1 has been amended. Claims 1-4, 8-13, and 15 are currently pending. The amendment is sufficient to overcome the 35 USC 102 and 103 rejections set forth in section 8 of the last Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4, 8-13, and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites the second expansive surface "having a binder composition applied thereto for enhancing surface abrasiveness of said second expansive surface". The specification does not enable one skilled in the art to make the invention because there is nothing in the claims or specification that indicates what might constitute a binder composition that performs the function of enhancing surface abrasiveness.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4, 8-13, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites a binder composition that enhances surface abrasiveness of a surface. How does the binder composition enhance surface abrasiveness? Is the binder composition itself formed of material that is abrasive? Does the binder composition only act to stiffen the fibers of the nonwoven surface? What type of binder is required to meet the abrasiveness requirement?

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-4, 11, and 15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Welchel et al. (U.S. Patent No. 6,022,818) in view of Wong et al. (U.S. Patent No. 5,213,588).

Welchel et al. disclose a hydroentangled nonwoven fabric formed from two different fiber sources (column 2, lines 34-37). One surface is made of matrix fibers, such as polyester (column 2, line 51), and the other surface is made of absorbent fibers, such as cellulosic fibers and rayon (column 4, lines 38-40). Welchel et al. do not teach

applying an abrasive coating to the fabric for cleansing purposes. Wong et al. disclose adding abrasive particles in a coating to nonwoven wiping materials to enhance soil and stain removal performance (column 1, lines 64-68). Wong et al. further suggest that the abrasive coating of their invention can be applied to any conventionally fashioned nonwoven sheet with suitable characteristics (column 3, lines 65-68). It would have been obvious to one having ordinary skill in the art to apply the abrasive coating provided by Wong et al. to the nonwoven fabric taught by Welchel et al. in order to create a cleaning wipe with enhanced soil and stain removing properties. Wong et al. disclose applying the abrasive coating in a pattern onto the nonwoven fabric (column 2, lines 52-55). With regard to claims 2-4, it would have been obvious to a person having ordinary skill in the art to differentiate the opposite surfaces by dyeing either the fibers or the binder material present on the respective surfaces different colors. A coating applied in a pattern is scattered across the fabric in a non-random fashion. With regard to claim 11, Welchel et al. disclose a second layer of synthetic matrix fibers can be added to the first layer of matrix fibers, thus making the first layer an intermediate layer. With regard to claim 15, Welchel et al. disclose apertures are formed during the hydroentangling process (column 8, lines 23-27).

8. Claims 1-4 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenway (U.S. Patent No. 4,753,839) in view of Wong et al.

Greenway discloses a nonwoven fabric, made of at least one layer, subjected to hydroentanglement (column 2, lines 30-34). Greenway does not disclose specific two layer embodiments in the invention. However, Greenway does state that multiple layers

of various combinations of blends of fibers may be used to give variations of the fabric (column 3, lines 50-55). The fabric disclosed by Greenway is used in everyday washing and cleaning purposes (column 8, lines 14-27). But Greenway does not teach applying an abrasive coating to the fabric for cleansing purposes. Wong et al. disclose adding abrasive particles in a coating to nonwoven wiping materials to enhance soil and stain removal performance (column 1, lines 64-68). Wong et al. further suggest that the abrasive coating of their invention can be applied to any conventionally fashioned nonwoven sheet with suitable characteristics (column 3, lines 65-68). It would have been obvious to one having ordinary skill in the art to apply the abrasive coating provided by Wong et al. to the nonwoven fabric taught by Greenway in order to create a cleaning wipe with enhanced soil and stain removing properties. Wong et al. disclose applying the abrasive coating in a pattern onto the nonwoven fabric (column 2, lines 52-55). A coating applied in a pattern is scattered across the fabric in a non-random fashion. With regard to claims 2-4, it would have been obvious to a person having ordinary skill in the art to differentiate the opposite surfaces by dyeing either the fibers or the binder material present on the respective surfaces different colors. Making the two surfaces different colors is an obvious matter of design choice. With regard to claims 8-10, Greenway discloses four different possible layers that can be blended together, including a blend of 85% rayon with 15% polyester, 50% rayon with 50% polyester, 100% cellulosic, or 100% thermoplastic. It would have been obvious to one skilled in the art to combine one layer of 100% rayon with another layer of 50% rayon with 50% polyester in order to form a hydroentangled nonwoven with the feel and

abrasion resistant properties of the respective layers, as is suggested to be done by Greenway.

9. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenway in view of Wong et al. as applied to claim 1 above, and further in view of Buyofsky et al. (U.S. Patent No. 4,810,568).

The various layer embodiments of Greenway could be construed to contain a third intermediate layer of 100% synthetic fibers, since Greenway teaches the fabric could be multi-layered and discloses the use of a layer that is 100% synthetic. However, Buyofsky et al. disclose a nonwoven composite used as a wipe with excellent abrasion resistance, dimensional stability, and absorbency (column 1, lines 47-60). Two entangled layers are coated with an abrasive binder, and then laminated together with a thermoplastic reinforcement layer in-between, which offers dimensional stability to the composite (column 2, lines 36-64). It would have been obvious to one having ordinary skill in the art to use a reinforcement layer in the nonwoven of Greenway in combination with Wong et al. in order to increase the dimensional stability of the composite, as taught by Buyofsky et al.

Response to Arguments

10. Applicant's arguments filed in Paper No. 9 have been fully considered but they are not persuasive.

11. Applicant asserts that those skilled in the art are quite familiar with the various types of binder compositions, which can be employed for nonwoven fabric manufacture.

The lack of enablement rejection is maintained because there is no guideline in the specification as to what this binder might be. No chemical or structure of the binder is disclosed. A person of skill in the art would not know what type of material would accomplish Applicant's desire to obtain an "enhanced surface abrasiveness," because such a term is relative. Applicant provides a Data Sheet for Clariant Perstorp to show an example of a material that works in the present invention. However, there is nothing in this Data Sheet to show that person of skill in the art would know to use it in the present invention. The Data Sheet says nothing as to enhancing surface abrasiveness. Furthermore, the specification provides no indication that this material would be useful in the invention.

12. The 112 second paragraph rejection is also maintained. A binder composition that enhances surface abrasion is indefinite because it is unclear as to what type of binder is necessary to achieve enhanced surface abrasion. There are many degrees to which a surface may obtain enhanced surface abrasion. It is unclear to what degree it is desired by the Applicant in this invention. Does the binder composition enhance surface abrasiveness to the degree that a polyester coating would provide? Or an epoxy resin containing diamond particles? It is unclear because no examples are given in the specification to verify the degree to which the surface abrasion is enhanced.

13. Applicant argues that Wong et al. teach abrasive particles are secured by means of an adhesive and the abrasive characteristics are being provided by abrasive particles rather than the binder composition itself. However, the abrasive particles are part of the binder composition. Mixing abrasive particles in an adhesive creates a binder

composition that enhances surface abrasiveness, which is what the Applicant claims. Therefore, the binder composition containing abrasive particles would satisfy the requirement for a binder composition enhancing surface abrasion. Applicant does not set forth in the claims or specification how the binder composition of the present invention should differ from what is disclosed in the references. The use of abrasive particles in an adhesive is not precluded from being a binder composition exhibiting abrasiveness in the claims or specification. Applicant has not provided any basis for why the binder composition cannot contain any abrasive particles.

14 Applicant argues that Wong et al. do not teach or suggest a modification of Welchel et al. Welchel et al. teach a wiper material. Wong et al. teach improving wiper materials by applying an abrasive coating. Therefore, Wong et al. teach a manner to modify the Welchel et al. reference.

15. Applicant argues Greenway and Buyofsky et al. do not teach scatter or pattern application of a binder composition that enhances the abrasiveness of one surface. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the Buyofsky et al. reference was only used to show the inclusion of a reinforcement layer and was not directed to the abrasive binder composition.

16. Applicant argues that the present invention is directed to a "relatively hard", "polymeric" binder, rather than an adhesive with abrasive particles. In response to

applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a hard polymeric binder) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jeremy R. Pierce
Examiner
Art Unit 1771

March 24, 2003